

8/9/13

BE VIII CMPN (REV)

Software Architecture.

VI-F.II.Exam. April(1)-13-101

Con. 7478-13.

GS-2974

(REVISED COURSE)

( 3 Hours )

[ Total Marks : 100

- N. B. : (1) Question No. 1 is **compulsory**.  
(2) Attempt any **four** questions from remaining **six** questions.  
(3) Assume **suitable** data wherever **necessary**.

1. (a) What do you mean by architectural degradation ? Explain architectural drift and erosion. 4  
(b) Define product Line Architecture. 4  
(c) Why system based analysis important, if you have already completed component and component level analysis ? 4  
(d) What is a reference architecture ? How does it differ from an ordinary Software Architecture ? 4  
(e) What is a difference between view and viewpoint ? 4
2. (a) What are different criterias for evaluating implementation framework ? 8  
(b) Explain REST with a diagram. 8  
(c) Differentiate Software Architecture and Design. 4
3. (a) Define following terms :- 6  
(i) Component  
(ii) Connector  
(iii) Configuration.  
(b) Explain 4 + 1 view in UML. 5  
(c) What do you mean by stakeholder driven modeling. 5  
(d) Differentiate accuracy and precesion. 4
4. A Lunar Lander game is to be developed with following specifications:- 20  
**User input** – It takes input from pilot as increase/decrease speed which is directly mapped to required burn rate.  
**Other inputs** –Lunar Lander has two sensors  
(i) Current Burn Rate  
(ii) Current altitude.  
**Output** – Based on this 3 inputs determine new burn rate and set different parameters like altitude, velocity etc. and display them.  
Draw an architecture using any of two styles :-  
(a) Object Oriented Style  
(b) Role Based Style  
(c) Black Board Style.

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5. (a) Explain with example software system mobility and architecture. 10  
(b) Explain any **two** connectors in detail :— 10  
    (i) Data access connector  
    (ii) Stream connector  
    (iii) Procedure call connector.
6. (a) What is SOA and web services. 10  
(b) What is an architecture implementation framework ? How does an architecture implementation framework differ from middleware ? 5  
(c) What domain specific S.A. ? 5
7. (a) What is C2 Style Architecture ? 6  
(b) Design issues for non functional properties – Scalability and Hetrogeneity. 6  
(c) Explain distributed object style in connection with CORBA architecture. 8

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